

AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims, in which claims 41-43 are canceled without prejudice or disclaimer, claim 34 is amended, and new claims 44-46 are added.

1-23. (Canceled)

24. (Previously Presented) A method comprising:

determining to generate a request for a subscription to a push service over a first network on

behalf of a terminal in a second network to obtain push content;

determining to initiate establishment of a data session with the terminal via a network address

translator or a firewall in response to receiving the request;

causing, at least in part, registration of a network address assigned to the terminal associated

with the first network in accordance with establishment of the data session;

causing, at least in part, transmission of the push content over the first network and via the

network address translator or the firewall to the terminal; and

causing, at least in part, transmission of subsequent push content through the network address

translator or the firewall to the terminal based upon direct subscription to the push service

by the terminal, the direct subscription occurring after de-registration and then re-

registration of the terminal.

25. (Previously Presented) A method according to claim 24, further comprising:

causing, at least in part, de-registration of the terminal by removing the terminal from the

registration associated with the data session, removing the terminal from a translation

table of the network address translator or the firewall, making the terminal enter into an idle mode, or a combination thereof.

26. (Previously Presented) A method according to claim 24, further comprising:
causing, at least in part, transmission of a trigger to the terminal over a communication channel independent of the network address translator or the firewall, in response to receiving subsequent push content in accordance with the push service; and
causing, at least in part, re-registration of the terminal after the transmission of the trigger.

27. (Previously Presented) A method according to claim 26, further comprising:
causing, at least in part, transmission of the subsequent push content over the first network and via the network address translator or the firewall to the terminal based upon the re-registration,
wherein the trigger includes a globally unique identifier of the terminal.

28. (Previously Presented) A method according to claim 24, further comprising:
receiving the push content from the push service, before or after registering the network address assigned to the terminal.

29. (Previously Presented) A method according to claim 27, further comprising:
receiving the subsequent push content from the push service, before the re-registration of the terminal.

30. (Previously Presented) A method according to claim 24, wherein the push service is originated from the first network or a third network connected to the first network via another network address translator or another firewall.

31. (Previously Presented) An apparatus comprising:

at least one processor; and

at least one memory including computer program code,

the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to perform at least the following,

determine to generate a request for a subscription to a push service over a first network on behalf of a terminal in a second network to obtain push content,

determine to initiate establishment of a data session with the terminal via a network address translator or a firewall in response to receiving the request,

cause, at least in part, registration of a network address assigned to the terminal associated with the first network in accordance with establishment of the data session,

cause, at least in part, transmission of the push content over the first network and via the network address translator or the firewall to the terminal, and

cause, at least in part, transmission of subsequent push content through the network address translator or the firewall to the terminal based upon direct subscription to the push service by the terminal, the direct subscription occurring after de-registration and then re-registration of the terminal.

32. (Previously Presented) An apparatus of claim 31, wherein the apparatus is further caused to:

cause, at least in part, de-registration of the terminal by removing the terminal from the registration associated with the data session, removing the terminal from a translation table of the network address translator or the firewall, making the terminal enter into an idle mode, or a combination thereof.

33. (Previously Presented) An apparatus of claim 31, wherein the apparatus is further caused to:

cause, at least in part, transmission of a trigger to the terminal over a communication channel independent of the network address translator or the firewall, in response to receiving subsequent push content in accordance with the push service; and

cause, at least in part, re-registration of the terminal after the transmission of the trigger.

34. (Currently Amended) An apparatus of claim [[31]]33, wherein the apparatus is further caused to:

cause, at least in part, transmission of the subsequent push content over the first network and via the network address translator or the firewall to the terminal based upon the re-registration,

wherein the trigger includes a globally unique identifier of the terminal.

35. (Previously Presented) An apparatus of claim 31, wherein the apparatus is further caused to:

receive the push content from the push service, before or after registering the network address assigned to the terminal.

36. (Previously Presented) An apparatus of claim 34, wherein the apparatus is further caused to:

receive the subsequent push content from the push service, before the re-registration of the terminal.

37. (Previously Presented) An apparatus of claim 31, wherein the apparatus comprises a session initiation protocol (SIP) proxy, the first network is a public network, and the second network is a private network.

38. (Previously Presented) A non-transitory computer-readable storage medium carrying one or more sequences of one or more instructions which, when executed by one or more processors, cause an apparatus to at least perform the following steps:

determining to generate a request for a subscription to a push service over a first network on behalf of a terminal in a second network to obtain push content;

determining to initiate establishment of a data session with the terminal via a network address translator or a firewall in response to receiving the request;

causing, at least in part, registration of a network address assigned to the terminal associated with the first network in accordance with establishment of the data session;

causing, at least in part, transmission of the push content over the first network and via the network address translator or the firewall to the terminal; and

causing, at least in part, transmission of subsequent push content through the network address translator or the firewall to the terminal based upon direct subscription to the push service by the terminal, the direct subscription occurring after de-registration and then re-registration of the terminal.

39. (Previously Presented) A non-transitory computer-readable storage medium of claim 38, wherein the apparatus is caused to further perform:

causing, at least in part, de-registration of the terminal by removing the terminal from the registration associated with the data session, removing the terminal from a translation table of the network address translator or the firewall, making the terminal enter into an idle mode, or a combination thereof.

40. (Previously Presented) A non-transitory computer-readable storage medium of claim 38, wherein the apparatus is caused to further perform:

causing, at least in part, transmission of a trigger to the terminal over a communication channel independent of the network address translator or the firewall, in response to receiving subsequent push content in accordance with the push service; and causing, at least in part, re-registration of the terminal after the transmission of the trigger.

41. – 43. (Canceled)

44. (New) A method according to claim 24, wherein the direct subscription occurring only after de-registration of the terminal.

45. (New) A method according to claim 24, wherein the direct subscription uses a short messaging service, enhanced messaging service, multimedia messaging service, or wireless application protocol-push message.

46. (New) A method according to claim 24, wherein the direct subscription includes a globally unique identifier of the terminal.